

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

CALLAWAY GOLF COMPANY,

Plaintiff,

v.

ACUSHNET COMPANY,

Defendant.

C. A. No. 06-91 (SLR)

**PUBLIC VERSION**

**CALLAWAY GOLF COMPANY'S *RESPONSE* TO  
ACUSHNET COMPANY'S MARKMAN BRIEF**

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Callaway Golf and Acushnet agree that there is an established hierarchy of importance in what a Court considers in construing claims, starting with the claim language itself, then the specification, and finally extrinsic evidence. [D.I. 207 at 6]. However, Acushnet virtually ignores the most important element of the hierarchy – the actual language of the claims – and ignores the teachings in the specification that compel Callaway Golf’s proposed constructions.

First, for the limitation requiring an “inner [or outer] cover layer having a Shore D hardness,” Acushnet attempts to rewrite the claims to refer to the hardness of the raw materials that make up the layer, rather than the hardness of the golf ball cover layer itself. Similarly, for the “core” limitations, Acushnet attempts to drastically narrow the very simple, broad terms “a core” and “a spherical core,” in hopes of creating a non-infringement argument. Acushnet’s argument would not only impermissibly narrow the claims, but it ignores that the inventions of the patents relates to the features and properties of the cover layers and are not dependent on whether those layers are disposed over a single layer or double layer core.

Second, Acushnet conveniently ignores the numerous passages in the specification that undermine its proposed constructions. For an “inner [or outer] cover layer having a Shore D hardness,” Acushnet does not even discuss that, in every place (and there are many) where the specification discusses measuring the hardness of a cover *layer* (as opposed to the hardness of the raw materials from which the layer is formed), the specification consistently and repeatedly states that the measurement should be taken on the golf ball. For “core,” Acushnet ignores the various types of cores that are specifically set forth in the specification, as well as their Acushnet’s own admission that the very type of core that they seek to exclude was well known to those of skill in the art at the time of filing the patents.

Finally, the extrinsic evidence only further supports Callaway Golf’s constructions. For “Shore D,” Acushnet attempts to use an amendment made to the specification, but that argument is a red herring and conflates written description and claim construction.

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. For “core,” Acushnet cites to a patent that was made of record during the prosecution of the patents-in-suit to suggest that “core” is limited to “only the innermost” portion of the core as opposed to the entire core itself, despite the fact that the patent referenced by Acushnet does not even define the term “core” for purposes of that patent much less other patents.

## I. SUMMARY OF ARGUMENT

1. Acushnet’s proposed construction for an “inner [or outer] cover layer having a Shore D hardness” is refuted by: (i) the actual claim language, which, by referring to the layer, requires the measurement to be taken on the ball; (ii) the specification, which repeatedly and consistently describes taking the hardness measurement of the cover layers on the finished golf ball; and (iii) the case law and prior art on which Acushnet itself relies. Callaway Golf’s construction, conversely, is supported by both the literal meaning of the claims and the specification, as well as compelled by the cases relied on by Acushnet.

2. Acushnet’s proposed construction for “core” is refuted by the language of the claims, the specification, and the knowledge of those of skill in the art. Moreover, Acushnet’s construction is directly refuted by the principle case that it relies on. To the extent that any construction is necessary at all, Callaway Golf’s proposed construction is supported by the claim language itself and the specification.

## II. ARGUMENT

### A. The correct construction of “[inner or outer] cover layer having a Shore D hardness” requires the hardness to be *measured on the ball*.

First, it bears repeating that “it is a ‘bedrock principle’ of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted).

Attending this principle, *a claim construction analysis must begin and remain centered on the claim language itself*, for that is the language the patentee has chosen to particularly point[ ] out and distinctly claim[ ] the subject matter which the patentee regards as his invention.

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*Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004) (emphasis added), as expressly affirmed by *Phillips*, 415 F.3d at 1312. In contravention of this edict, Acushnet ignores the relevant claim language entirely.

**1. The claim language compels Callaway Golf's proposed construction.**

The Shore D limitations of the asserted claims are clearly worded. There is no ambiguity. For instance, Claim 1 of the '293 patent states:

1. A golf ball comprising:

a core;

an ***inner cover layer having a Shore D hardness of 60 or more*** molded on said core, said inner cover layer having a thickness of 0.100 to 0.010 inches, said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and

an ***outer cover layer having a Shore D hardness of 64 or less*** molded on said inner cover layer, said outer cover layer having a thickness of 0.010 to 0.070 inches, and said outer cover layer comprising a relatively soft polyurethane material.

[D.I. 208, Ex A, '293 Patent, Claim 1]

These limitations plainly relate to the hardness measurements of the “inner cover layer” and the “outer cover layer.” These “layers” do not exist until they are created on the golf ball through a molding or casting process. For example, the specification describes the compression molding process, which entails melting the raw materials to be used to in the inner cover layer and then injecting the composition into the golf ball mold to form the layer:

In compression molding, the inner cover composition is formed via injection at about 380° F. to about 450° F. into smooth surfaced hemispherical shells which are then positioned around the core in a mold having the desired inner cover thinness and subjected to compression molding at 200° F to 300° F. for about 2 to 10 minutes, followed by cooling at 50° to 70° F. for about 2 to 7 minutes to fuse the shells together to form a unitary intermediate ball.

[*Id.* at '293 patent, col. 15: 27-35]

Because the inner and outer cover layers do not even exist until they are created on the golf ball, any measurement of the hardness of the cover *layers* must be taken on the ball, after the layers have been formed. Accordingly, Callaway Golf's proposed construction – that the hardness of the layers is measured on the ball – is the only construction that is consistent with the plain language of the claims.

Acushnet's proposed construction – requiring an “off the ball” measurement of the materials used for the cover layers – seeks to rewrite the claims to read: “an inner cover layer *made of raw material* having a Shore D hardness of 60 or more” and “an outer cover layer *made of raw material* having a Shore D hardness of 64 or less.” Even Acushnet must admit that one cannot rewrite claim language through the claim construction process, and so Acushnet instead simply ignores the plain language of the claims, never discussing the actual term at issue in the context of the claim.

Instead, Acushnet focuses on claims that are not asserted and terms that are not the subject of this claim construction process. [D.I. 207, at 14-15]. To make its claim construction argument, Acushnet looks to a limitation relating to “modulus” that appears only in non-asserted claim 6 of the '130 patent and non-asserted claim 7 of the '293 patent. Acushnet begins with the premise that: *(a)* because the non-asserted claims refer to the modulus of the outer cover layer; *and (b)* because everyone agrees that the modulus cannot be measured on the ball; *it follows that (c)* the claim would be construed to require the modulus to be measured off the ball. From this, Acushnet then tries to draw the following parallel: *(a)* because the asserted claims refer to the Shore D hardness of the inner and outer cover layers; *it follows that (b)* the Shore D hardness must be measured off the ball. There is a glaring hole in Acushnet's logic: Unlike as with the modulus limitation, everyone does *not* agree that the Shore D hardness cannot be measured on the ball.

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M<sup>1</sup>oreover, as discussed in the next section, the majority of the examples cited in the specification of the patents-in-suit expressly state that the hardness is measured on the ball.<sup>2</sup> [See D.I. 208, Ex. A, '293 Patent, Examples 1-4, Tables 5-9] There is nothing inconsistent with the claims reciting a modulus that is measured off the ball and a hardness that is measured on the ball, and Acushnet's argument falls flat.

Quite simply, the asserted claims must be interpreted as they are written, and from the claim language alone, one of ordinary skill would understand that the hardness of the inner and outer cover *layers* is measured on the ball.

**2. The specification of the patents-in-suit compels Callaway Golf's construction.**

Acushnet argues that the specification supports an "off the ball" construction, because, in two places, the specification states that hardness was measured in accordance with ASTM test D-2240. Acushnet argues that strict adherence to ASTM D-2240 requires measuring the hardness of a test sample on a flat surface that is at least 0.25 inches thick – i.e., not on a rounded golf ball – and therefore the specification supports Acushnet's claim construction.

Acushnet's argument fails for two reasons. First, Acushnet confuses the instances in which the specification discusses measuring the hardness of the *materials* for the cover layers with the separate (and more numerous) instances in which it discusses measuring the hardness of the golf ball *layers* made from materials. Every time the specification discusses the hardness of the layers – which is what the claims require – it is abundantly clear that those measurements are

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<sup>1</sup> All exhibit citations refer to the accompanying declaration of Thomas L. Halkowski, unless otherwise noted.

<sup>2</sup> While Acushnet is correct that the "machine that test flexural modulus is specially designed for a plaque of material of specified dimensions," that too is of no significance because that machine is not the machine that is used to measure Shore D. In contrast, a durometer, the machine used to measure Shore D can be used on the ball, as the patents-in-suit detail extensively. [For a detailed discussion, see D.I. 204, Callaway Golf's Opening Markman Brief, at 10-13].

made on the golf ball itself. Acushnet cannot explain away those passages in the specification, so it ignores them entirely.

Second, Acushnet fails to mention that the portion of the specification on which it does rely actually makes it clear that the hardness measurement is being made **both** on the ball and in accordance with ASTM D-2240. In fact, there are many aspects of the ASTM D-2240 standard that have nothing to do with the thickness or flatness of the material being measured – e.g., the calibration of the durometer, the conditioning of the sample, etc. – and it is common in the golf ball industry to comply with all of those requirements of ASTM D-2240 while taking a hardness measurement on the ball. Accordingly, the mention of ASTM D-2240 in the specification does not mean the hardness limitations must be taken off the ball, as Acushnet attempts to argue. Indeed, because the specification itself talks about taking on-the-ball measurements in accordance with ASTM D-2240, it compels the opposite conclusion and further supports Callaway Golf’s claim construction.

- a. **The specification distinguishes between the hardness of the raw materials, which is measured off the ball, and the hardness of the inner and outer cover layers, which is measured on the ball.**

In the asserted patents, the first part of the “Detailed Description of the Invention” discusses the raw materials to be used for the various layers of the claimed golf balls (*see generally* D.I. 208, Ex. A, ’293 patent, col. 5: 48 – 14: 62), and the second part discusses the layers and golf balls that are made from those raw materials (*see generally id.* at ’293 patent, col. 14: 63 – col. 23: 46). Acushnet fails to recognize this distinction, and therefore misapplies statements regarding the hardness of the raw materials to the claims, which expressly concern the hardness of the golf ball **layers**.

For example (at p. 13), Acushnet points the Court to col. 7, lines 19-22 of the ’293 patent to support its point that the specification teaches measuring hardness in accordance with D-2240. Looking at that statement in context, however, makes it clear that the specification is talking

about measuring the hardness of the ionomer **material** to be used in the outer cover layer, not the outer cover **layer**:

Specifically, a desirable **material** for use in molding the outer layer comprises a blend of a high modulus (hard), low acid, ionomer with a low modulus (soft), low acid, ionomer to form a base ionomer structure. A high modulus ionomer herein is one which measures from about 15,000 to about 70,000 psi as measured in accordance with ASTM method D-790. The hardness may be defined as at least 50 on the Shore D scale as measured in accordance with ASTM method D-2240.

[*Id.* at '293 patent, col. 7: 13-22]

This passage teaches nothing about measuring the hardness of the golf ball layers. Naturally, the hardness of the individual raw materials must be measured on a plaque, rather than on the golf ball, because those individual raw materials are blended with other raw materials before being molded onto the golf ball. Conversely, the hardness of the inner and outer cover layers can be measured only on the golf ball, because those layers do not exist before they are molded on the ball. Since the claims require measuring the hardness of the layers, that measurement must be taken on the ball, and this passage further supports Callaway Golf's claim construction.<sup>3</sup>

In the second half of the specification, where Mr. Sullivan discusses the properties of the golf balls as constructed, in each instance it is clear that the hardness measurements of the layers were taken on the ball. For instance:

- In column 16, Sullivan describes preparing intermediate balls (balls with an inner cover layer, but no outer cover layer) and states, "[t]he resulting molded intermediate balls were tested to determine the individual compression (Riehle),

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<sup>3</sup> Although Acushnet does not list them, there are other places in the specification where Mr. Sullivan discussed measuring the hardness of raw materials in accordance with ASTM D-2240, but as with the passage quoted above, those passages do not address measuring the hardness of a cover layer made from those raw materials. See '293 patent, Table 1 (showing the hardness of Surlyn® resins suitable for use in the blends for the cover layers); Table 2 (showing the hardness of various Iotek ionomer materials suitable for use in the cover layers); Table 3 and col. 11: 60-62 (discussing the hardness of Iotek ionomer 7520).

C.O.R., Shore C hardness, spin rate and cut resistance properties.”<sup>4</sup> [*Id.* at ’293 patent, col. 16: 34-38]. Table 5 then reports the Shore C hardness measurements of the “Molded Intermediate Golf Balls.” Clearly, because the intermediate balls were formed and then tested for hardness, that hardness measurement was taken on the molded intermediate ball, not on a plaque.

- In columns 17 and 18, Sullivan again describes preparing multi-layer balls and states: “The resulting balls (a dozen for each example) were tested and the various properties thereof are set forth in Table 6A as follows.” [*Id.* at ’293 patent, col. 18: 38-40.] Table 6A then reports the Shore C hardness of the “Finished Balls.” Since that measurement is the result of testing a finished ball, it clearly was taken on the ball itself.
- In column 19, Sullivan describes making balls with other outer layer formulations and states: “Similar properties tests were conducted on these golf balls and the results are set forth in Table 6B below.” [*Id.* at ’293 patent, col. 19: 28-49] Table 6B first lists the ingredients for the various formulations, then it reports various “Properties of Molded Finished Balls,” including Shore C hardness.
- In column 21, Sullivan describes making balls with different blends for the inner cover layer and states: “The ‘ball data’ of the oversized multi-layer golf balls in comparison with production samples of ‘Top-Flite® XL’ and ‘Top-Flite® Z-Balata’ is set forth below.” [*Id.* at ’293 patent, col. 21: 50-53] Table 8 then reports the Shore D hardness among the “Mantle Data” (the mantle is the ball without the outer cover layer) and among the “Ball Data,” which again indicates the measurements were taken on the ball.

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<sup>4</sup> Shore C and Shore D are both methods of measuring hardness, with the difference being the sharpness of the Shore C and Shore D indentors used in the durometers. Accordingly, Sullivan’s teachings regarding measuring Shore C hardness of the layers on the golf ball are directly to the claimed measurements of Shore D hardness of the layers. [D.I. 206, Ex. 8 – ASTM D-2240]

- Finally, in columns 22 and 23, Sullivan describes making golf balls with a castable polyurethane outer cover, and states: “All samples were finished using normal production equipment and procedures. The properties of the finished balls are set forth below.” [*Id.* at ’293 patent, col. 22: 65-67] Table 9 then reports the Shore C hardness among the “BALL DATA” for the various samples.

All told, the specification contains over 30 examples of Shore hardness measurements taken *on the ball itself*. [*Id.* at ’293 Patent, Ex A, Tables 5-9; see also D.I. 204, Callaway Golf’s Opening Markman Brief, at 10-13] Acushnet completely ignores these examples of the actual embodiments of the inventions of the patents-in-suit, which are the most relevant examples in construing the claims and which compel Callaway Golf’s construction.

**b. Sullivan’s reference to ASTM D-2240 is consistent with the industry practice of measuring Shore hardness on the ball and in accordance with all of the other requirements of D-2240.**

To support its “off the ball” construction, Acushnet quotes a passage at column 16, lines 49-50 of the ’293 patent. When read in context, however, that passage compels the construction that “Shore D hardness” in the claims refers to a measurement made on the ball.

The statement Acushnet quotes appears in the discussion of “Example 1” in the specification, which begins at column 15, line 65. As Sullivan explains: “Several intermediate balls (cores plus inner cover layers) were prepared in accordance with conventional molding procedures described above.” [D.I. 208, Ex. A, ’293 patent, col. 15: 66 – col. 16: 1] After the intermediate balls were formed, Sullivan then tested various properties of the balls: “The resulting molded intermediate balls were tested to determine the individual compression (Riehle), C.O.R., Shore C hardness, spin rate and cut resistance properties.” [*Id.* at ’293 Patent, col. 16:34-37] The statement upon which Acushnet relies then appears a few lines later: “Shore hardness was measured in accordance with ASTM test 2240.” [*See id.* at ’293 Patent, col. 16:49-50.] In context, it is clear that the shore hardness measurements being discussed are those take on the molded intermediate balls. Accordingly, this reference to ASTM test 2240 cannot mean that the tests were taken on a plaque. Instead, this statement must refer to other aspects of

the ASTM test, such as those relating to the calibration of the durometer and the position of the sample.<sup>5</sup> Reading the statement to require a measurement on the plaque – as Acushnet does – makes it inconsistent with the earlier portion of the specification and therefore cannot be correct.

It is common for golf ball designers to refer to hardness tests as being taken in accordance with ASTM D-2240 even when they are made directly on the golf ball. Indeed, Acushnet has done exactly that in papers submitted to the PTO in the pending reexamination proceedings. In support of its invalidity argument in the PTO, Acushnet filed a declaration of its Vice President of Intellectual Property, Jeffrey Dalton, relating to various hardness tests that Mr. Dalton conducted on a purported prior art golf ball.<sup>6</sup> Mr. Dalton stated in his sworn declarations that the golf ball “had a Shore D hardness of about 58 Shore D *when tested according to ASTM standards on the cover of a ball.*” [Halkowski Decl. Exs. 1-4] Golf ball designers – Mr. Dalton included – understand that measurement described as being taken in accordance with ASTM standards do not necessarily have to be taken on a plaque. Mr. Dalton made clear that his measurements were taken “on the cover of a ball,” just like the specification makes clear that the measurements were taken on the “resulting intermediate golf balls.”

In relying on Mr. Dalton’s declaration before the PTO, Acushnet tacitly acknowledged that it agrees with Callaway Golf that the claims require measuring Shore D hardness on the ball, Acushnet did not have Mr. Dalton measure the hardness of the prior art golf ball cover layer “off the ball” – Acushnet tested *the ball* itself. Acushnet has even relied on Mr. Dalton’s tests in arguing to this Court that the patents-in-suit were invalid. [D.I. 206 at 21]. Clearly, Acushnet understands that the claims of the patents-in-suit require that the Shore D hardness measurements be performed “on the ball.”

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<sup>5</sup> The ASTM D-2240 document specifies various parameters for measuring hardness using a durometer, including the calibration of the durometer (D-2240 section 7), the conditioning of the sample (section 8) and the application of the durometer to the sample (section 9). [D.I. 206, Ex. 8 – ASTM D-2240]

<sup>6</sup> Mr. Dalton is in the Research and Development arm of Acushnet, he is an inventor on several Acushnet golf ball patents, and he was designated by Acushnet as its Rule 30(b)(6) witness on topics relating to the technical features of the accused golf balls.

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- c. **The cases that Acushnet relies on in support of its construction of “Shore D” actually compel the adoption of Callaway Golf’s construction.**

Acushnet argues (at 11) that: (1) when an inventor defines a term in the patent, that definition should control; and (2) when the patent refers to an industry standard, that standard should control. *See* Acushnet’s brief at 11 (citing *Semitool, Inc. v. Novellus Sys., Inc.*, 44 Fed. Appx. 949 (Fed. Cir. 2002), and *Chimie v. PPG Indus. Inc.*, 402 F.3d 1371 (Fed. Cir. 2005)). As discussed above, Sullivan did not define Shore D hardness as being taken on a plaque; to the contrary, in every instance where the hardness of a layer is measured in the specification, it is measured on the ball. Similarly, the context in which Sullivan mentions the ASTM test makes clear that even tests taken in accordance with ASTM D-2240 were taken on the ball. Acushnet’s attempt to rely on *Semitool* and *Chimie* is misplaced and, in fact, compels the adoption of Callaway Golf’s claim construction.

*Semitool* is a non-precedential opinion relating to patents covering a semiconductor wafer processing device that could use either a chemical liquid or a gas in the necessary processing step. In reviewing whether the District Court correctly construed that the chamber containing the gas for processing was “sealed,” the Federal Circuit first noted that “nothing in the plain language of the claims sheds any light on the meaning of the phrase “substantially enclosed.” *Semitool*, 44 Fed. Appx. at 954. Because of that, the Court consulted the prosecution history. During prosecution, the patentee argued that the “substantially enclosed” chamber of the patent

“allows the processing space [chamber] to contain the gaseous or liquid processing chemicals.” *Id.* Thus a sealed chamber was required. If the chamber was not sealed, or “substantially enclosed” as the claims required, the invention would not work. This case is of little to no value to the present case. First, the present case is directly contrary to *Semitool* in that there is no ambiguity in the claims – the claims plainly require that the Shore D measurement be of the *layer* on the ball not of the material used to make the layer. Second, unlike *Semitool*, there is no statement in the specification that makes clear that if the measurement is taken off the ball, as argued by Acushnet, the invention would not work. To the contrary, the reason that the measurement is taken on the ball is because that is the hardness that the club face experiences and thus is the hardness that is most important.

*Chimie*, the other case relied on by Acushnet is of no more help, and again, compels the construction proffered by Callaway Golf. *Chimie* involved spheroidal silica particulate and their process of manufacture. Silica is used as fillers in elastomeric products like automobile tires. Conventional fillers were inherently dusty and did not flow easily. The invention of the patent at issue was a filler that was “dust-free and non-dusting.” Because it was impossible for the silica to be entirely dust-free, the District Court construed the phrase to mean “a level of dust formation associated with the silica particulates of the ’234 patent, as measured in percentage weight according to DIN 53 383, that has a fines content value less than or equal to 13 and weight loss by abrasion value less than or equal to 0.5.” *Chimie*, 402 F.3d at 1375. The District Court concluded that the term could not be read literally to mean that the invention creates no silica dust at all based on the tests in the written description that showed that some dust was created, thus some measure of what amount of dust was permissible had to be included in the claim construction. In agreeing with the District Court’s construction, the Federal Circuit noted that there were 10 examples detailed in the specification and in those 10 examples, two different tests were used to determine dust levels. Of the two tests, the Federal Circuit held that the District Court had chosen the correct one. “As we have frequently stated, a construction that ‘would not read on the preferred embodiment ... would ‘rarely if ever [be] correct and would



require highly persuasive evidentiary support’” *Id.* at 1377, citing *Interactive Gift Express, Inc. v. CompuServe Inc.*, 231 F.3d 859, 876 (Fed. Cir. 2000); *Modine Mfg. Co. v. United States Int’l Trade Comm’n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996) (“a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.”). Of the 10 examples in the patent specification, the dust levels of examples 5 and 10 were measured using the DIN test, the others used a different test. And because examples 5 and 10 were the preferred embodiment, and the claim, absent highly persuasive evidentiary support to the contrary, must be construed to cover the preferred embodiment, the DIN test was the proper test to include in the claim. “Because the only measurement of the dust produced by Examples 5 and 10 was articulated in terms of the DIN 53 583 standard, the district court properly incorporated that articulation into its construction of the term ‘dust-free and non-dusting’” *Chimie*, 402 F.3d at *Id.* at 1378. In other words, the test used to measure the preferred embodiments was the proper test to use in construing the claims – this holding compels the adoption of Callaway Golf’s construction.

While Callaway Golf does not believe there is any ambiguity in the language of the claims, as set forth above, requiring resort to the specification, any reference to the specification would simply show that the Shore D measurement of the layer must be taken on the ball itself, as required by *Chimie*. The Shore D measurements, while taken in accordance with ASTM D-2240, were performed in two ways in the patents’ specifications. As Acushnet discussed, for the basic information regarding the materials that were going to be used to make the embodying balls, the measurement was done on a plaque. However, for the preferred embodiments of the balls, for example balls 18-20 of Table 8 and balls 23-25 of Table 9, the Shore hardness measurements were taken on the ball itself. [D.I. 208, ’293 Patent, Ex A, Col. 21:50-54; Col. 22:65-67; Cols. 21-22, Table 8; Cols. 23-24, Table 9]. Because as *Chimie* holds, a claim must be construed to cover the preferred embodiment disclosed in the patent, the Shore D measurements must be performed on the ball.

**3. Acushnet's argument regarding an amendment to the specification is a red herring and certainly not enough to counter the clear language of the claims and specification**

The amendment made to the specification during prosecution of the '156 patent, raised by Acushnet, is a red herring. [D.I. 207 at 17] At issue in the rejections to which Acushnet refers was whether the specification provided adequate written description support for the claims. There was no discussion of what the language in the claims meant, but instead simply whether there was support for the claims. In response, Spalding added language to the specification to provide written description support for certain claims, written description support that was actually already present in the original application. That amendment, stating that a *material* had a certain Shore D hardness says nothing about how the layer hardness should be measured. And certainly, stating that a *material* can have a hardness of 64 or less can provide *support* for the notion that a layer made of the material may also have a hardness of 64 or less. This amendment does not discuss, or in fact, even suggest, how the measurement of the layer should be performed.

**4. Acushnet's reliance on extrinsic evidence is misplaced and actually refutes Acushnet's arguments in support of its proposed construction.**

Acushnet argues that other patents in the family of the patents-in-suit "shed light" on the correct construction of "Shore D hardness." If anything, those patents show that Callaway Golf's construction is correct. The two quotes, repeated below, establish that hardness of the inner and outer cover layers should be measured on the ball. From the specification of U.S. Patent No. 6,213,894, which Acushnet quotes:

As used herein, "Shore D hardness" of a cover is measured generally in accordance with ASTM D-2240, except the measurements are made on the curved surface of a molded cover, rather than on a plaque. Furthermore, the Shore D hardness of the cover is measured while the cover remains over the core. When a hardness measurement is made on a dimpled cover, Shore D hardness is measured at a land area of the dimpled cover.

[D.I. 207, at 19; '894 Patent, Col. 46:40-48].

Acushnet goes to great lengths arguing that a measurement made in accordance with ASTM D-2240 means that it *always* must be made on a plaque, intimating that one of skill in the art would have no idea how to perform a Shore D hardness measurement on a ball. Not only does this quote from the '894 patent plainly state the opposite, but it also makes clear that one of skill in the art knew and understood how to perform a Shore D hardness measurement in accordance with ASTM D-2240 *on the curved surface of the ball*. Moreover, it clearly says that Shore D hardness *of the cover* is measured on the ball itself.

The second of Acushnet's quotes from the '894 patent is a limitation of a claim requiring the "inner cover layer having a Shore D hardness of at least 60 as measured on the curved surface thereof." [D.I. 207, at 19] That this claim provides further confirmation that the hardness be measured on the golf ball's layer does not mean that the statements in the claims of the patents-in-suit must mean something different. Indeed, one of ordinary skill in the art, reading this claim along with the patents-in-suit, would be left with no doubt that the asserted claims refer to hardness measurements of the layers taken on the ball.

That those in the art knew and understood how to perform Shore D hardness measurements in accordance with ASTM D-2240 on the curved surface of the ball is further confirmed by Acushnet's own patents. Acushnet's United States Patent No. 5,492,972 filed in April of 1993, before the operative priority date of the patents in suit, discusses measuring Shore D hardness. The patent discloses that several balls were made and tested. "Each series of balls made from the cover stocks were tested for initial velocity, hardness, and cut resistance." [Halkowski Decl. Ex. 9, United States Patent No. 5,492,972, Col. 5:54-56] The Shore D hardness values of these balls was then reported in Table 2 [*Id.* at Col. 6] Below Table 2, the '972 patent explains that "Shore D hardness is measure in accordance with A.S.T.M. D 2240-86

durometer hardness.” [*Id.* at Col. 6:39-41] Thus, Acushnet’s own patents recognize that Shore D hardness measurements can be taken on the ball in accordance with ASTM D-2240.

**B. Acushnet’s proposed construction of “core” is refuted by the claims, the specification, and the extrinsic evidence.**

“Core” is an ordinary term that needs no construction at all. However, should the Court feel construction is needed, Acushnet’s proposed construction is incorrect. Acushnet argues that the correct construction of “core” is “the singular component of the golf ball that occupies the geometric center of the sphere of the golf ball.” [D.I. 207, at 20] This proposed construction directly contravenes the plain language of the claims, the specification, and the knowledge of one of skill in the art. [See D.I. 204, Callaway Golf’s Opening Markman Brief at 13-18]

Beginning again, with the language of the claims, there is no basis for Acushnet’s proposed construction in the claim language, nor does Acushnet suggest one. All of the claims at issue require either a “core” or a “spherical core,” and nothing in the claim language would indicate any intent to exclude a core that consists of more than one layer or component.

The specification of the patents not only fails to support Acushnet, but instead makes clear that the patented invention could be made with multiple types of cores, including solid cores and wound cores that comprise multiple layers and/or components.

The coefficient of restitution (C.O.R.) in solid core balls is a function of the composition of the molded core and of the cover. In balls containing a wound core (i.e., balls comprising a liquid or solid center, elastic windings, and a cover), the coefficient of restitution is a function of not only the composition of the center and cover, but also the composition and tension of the elastomeric windings.

[D.I. 208, ’293 Patent, Ex. A, Col. 4:41-52]. Acushnet’s argument that “there is nothing in the patents-in-suit that suggests that the term “core” can refer to more than one solid component of a

golf ball” is wrong. The quote from the specification above states that a core can have more than one component. There is no limitation on the number of components of the core; in fact, in direct contravention of Acushnet’s argument for a “singular component,” the specification notes that the wound cores may have multiple components. Moreover, as Acushnet acknowledges “multiple-piece cores were well known in the art at the effective filing date of the patents-in-suit.” [D.I. 207, at 21]. As the case law cited by Acushnet and discussed below acknowledges, because patents are written for those of skill in the art, and those of skill in the art bring their knowledge of what has come before to their reading of the patent, those of skill would read core to encompass more than that “singular component” Acushnet suggests.

**1. The case law that Acushnet relies on actually supports Callaway Golf’s position.**

Acushnet’s argument that *Lizardtech* precludes the adoption of Callaway Golf’s proposed construction because it would render the patents-in-suit invalid is wrong. [D.I. 207, at 24]. The entire patent at issue in *Lizardtech* was directed to **one** single, novel method for performing a seamless discrete wavelet transform (“DWT”). The claim covered that one single, novel method and, on a much broader scale, how to perform DWT’s generically. The patent did not disclose, nor would one of skill in the art know how to perform, DWT’s generically – seamless DWT’s were new to the field and this was the **only** way that anyone knew how to do it. Acushnet ignores the facts of this case and misinterprets its holding in an attempt to support its position, but the case actually supports Callaway Golf.

Acushnet, truncating the first sentence of the block quote upon which it relied, and thereby removing an important limitation placed on the Federal Circuit’s holding, one that is dispositive here, argued that the “Federal Circuit has made clear that broad claims that are

construed to have a scope beyond that which is supported by the written description of the patent at issue are invalid.” [D.I. 207, at p. 24]

Below is the portion of the *Lizardtech* decision that Acushnet quoted in its brief (Acushnet left off the phrase “placed in that context” bolded below):

**Placed in that context**, it is unnecessary to spell out every detail of the invention in the specification; only enough must be included to convince a person of skill in the art that the inventor possessed the invention and to enable such a person to make and use the invention without undue experimentation. In this case, however, LizardTech has failed to meet either requirement. After reading the patent, a person of skill in the art would not understand how to make a seamless DWT generically and would not understand LizardTech to have invented a method for making a seamless DWT, except by [the particular method disclosed]

*LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1346 (Fed. Cir. 2005). What Acushnet failed to include was ***that context***. Notably Acushnet also fails to cite to or discuss the first half of that paragraph.

Claim 21 is directed to creating a seamless array of DWT coefficients generically. The specification, however, is directed at describing a particular method for creating a seamless DWT, as opposed to using the disfavored, nonseamless prior art, and it teaches only that method of creating a seamless array. While the embodiment in LizardTech's specification covers only one way of creating a seamless DWT, claim 21 is not invalid simply for that reason. ***A claim will not be invalidated on section 112 grounds simply because the embodiments of the specification do not contain examples explicitly covering the full scope of the claim language.*** See *Union Oil Co. v. Atl. Richfield Co.*, 208 F.3d 989, 997 (Fed. Cir. 2000). ***That is because the patent specification is written for a person of skill in the art, and such a person comes to the patent with the knowledge of what has come before.*** In re *GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

*Id.*, (emphasis added). Putting aside whether the patents-in-suit disclose more than Acushnet's proposed construction for a moment (because they clearly do), Acushnet's argument fails because patents are written to a person of skill in the art who “comes to the patent with the

knowledge of what has come before.” *Id.* As Acushnet admits, “[p]rior to the effective filing date of the patents-in-suit in 1995, multi-component solid cores were well known in the golf ball art.” [D.I. 207, at 22] Unlike the DWT process at issue in *LizardTech*, which was not generically known to those of skill in the art, solid golf ball cores having multiple layers were known to those of skill in the golf ball art. Thus, “it [was] unnecessary to spell out every detail of the invention in the specification” – those of skill in the art already knew that a core could be a single component core or a multi-component core such as a wound core, among others. There was no need to disclose each and every variety. Thus, the limitation that Acushnet seeks to impose upon the claims is unwarranted.

Notably, that art that Acushnet inferentially refers to when it says that those of skill in the art knew of multi-component cores shows error of their proposed construction – that art does not refer to the core as innermost component but rather the core as the entire core, all components included. For example, United States Patent No. 5,439,227 claims a “solid core . . . being a multilayer configuration including a core inner layer circumscribed by at least one core outer layer.” Thus, even the prior art that distinguishes between a single piece core and a multi-component core does not refer to the inner-core as the core as Acushnet suggests should be done here.

**2. Acushnet’s reliance on extrinsic evidence is misplaced and actually supports Callaway Golf.**

Acushnet attempts to rely, again, on the ’894 patent to support its argument that “core” should be impermissibly limited, but that reliance is misplaced. The ’894 patent states, as Acushnet notes, that “the term ‘solid cores’ as used herein refers not only to one piece cores but also to those cores having a separate solid layer beneath the covers and over the central core.”

[D.I. 207, at 24; '894 Patent, Col 22:57-60]. First, the term “solid cores” used in the '894 patent is different than the term “core” used in the patents-in-suit. “Core” is broader and more generic, and it encompasses all solid cores, whether singular or multi-component, as well as all wound cores, as confirmed by Acushnet’s experts and its patents. [See D.I. 204, Callaway Golf’s Opening Markman Brief, at 17-18]. This is especially true when one remembers, as Acushnet admits, that multiple types of cores and, in particular, multi-component solid cores were well known to those of skill in the art at the effective filing date and would be included within the term “core.” As evidenced by numerous Acushnet patents:

- United States Patent No. 6,634,964, Col. 1:39-41 “Multi-layer golf balls are comprised of a solid core and a cover, either of which may be formed of one or more layers.” [Halkowski Decl., Ex 10.]
- United States Patent No. 6,818,705, Col. 1:44-48 “Solid golf balls also include multi-layer golf balls that are comprised of a solid core of one or more layers and/or a cover of one or more layers.” [Halkowski Decl., Ex. 11.]
- United States Patent No. 6,849,006, Col. 1:25-29 “Conventional golf balls can be divided into two general classes: solid and wound. Solid golf balls include one-piece, two-piece (i.e., solid core and a cover), and multi-layer (i.e., solid core of one or more layers and/or a cover of one or more layers) golf balls.” [Halkowski Decl., Ex. 12.]
- United States Patent No. 6,960,630, Col. 1:34-39 “Conventional golf balls can be divided into two general classes: solid and wound. Solid golf balls include one-piece, two-piece (i.e., solid core and a cover), and multi-layer (i.e., solid core of



one or more layers and/or a cover of one or more layers) golf balls.” [Halkowski Decl., Ex. 13.]

- United States Patent No. 6,100,340, Col. 1:31-34 “Multilayer balls can have a variety of constructions, such as having multiple core layers, an intermediate or mantle layer(s) or multiple cover layers and combinations thereof.” [Halkowski Decl., Ex. 14.]

Thus, those of skill in the art plainly recognize, and have since, as Acushnet admits, before the effective filing date of the patents-in-suit, that a “core” can be made of multiple components and layers.

Acushnet also relies on EPO 633 043 (A1) in an attempt to argue that core should be limited to a singular component but that reliance makes little sense. While it is true that the ’043 patent discloses a golf ball, and that golf ball has a core, this patent does not purport to define the term “core” for itself let alone any patent that uses the term. Thus, it should not be given any weight, especially given the clear language of the claims and specification that directly refute Acushnet’s proposed arbitrary limitation.

### **III. CONCLUSION**

For the foregoing, as well as the reasons set forth in Callaway Golf’s Opening Markman Brief, Callaway Golf’s proposed constructions should be adopted and Acushnet’s rejected.

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